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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/823,063	04/12/2004	Chen Lu Fan		3973

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EXAMINER

CHANDRAN, BIJU INDIRA

ART UNIT PAPER NUMBER

2835

DATE MAILED: 11/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/823,063	<b>Applicant(s)</b> FAN ET AL.	
	<b>Examiner</b> Biju Chandran	<b>Art Unit</b> 2835	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 April 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Claim Rejections - 35 USC § 102***

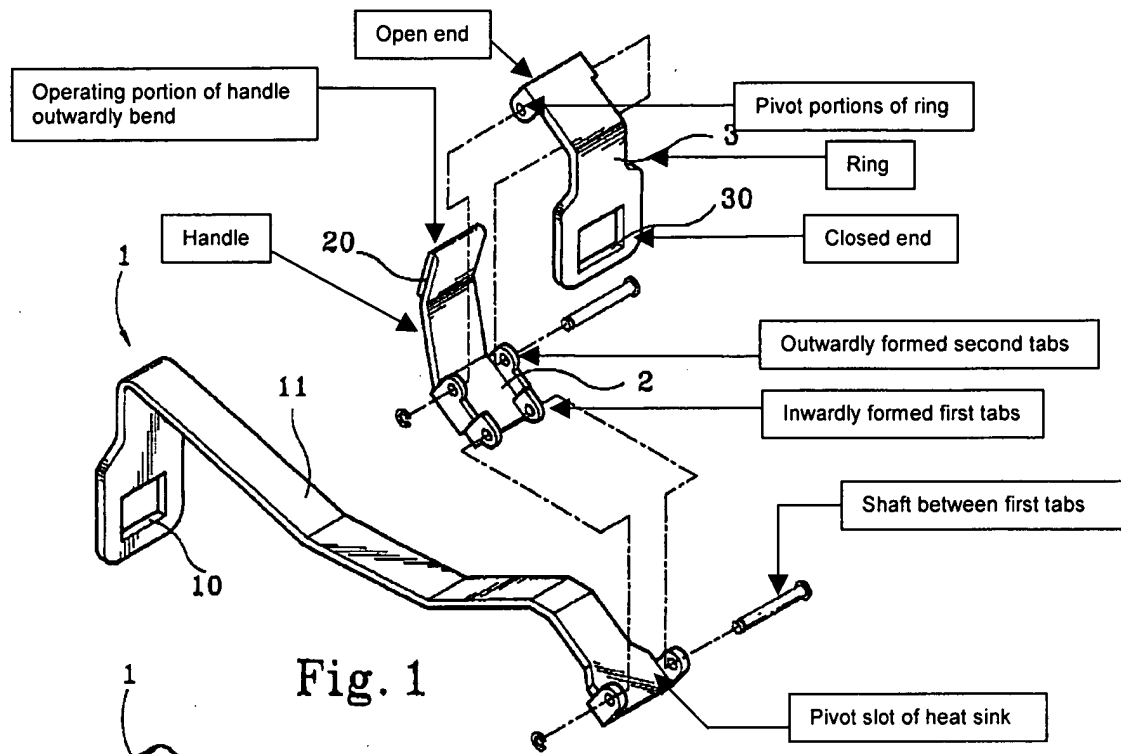
The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-6 rejected under 35 U.S.C. 102(b) as being anticipated by Lin (US Patent 5,638,258).

- Regarding claim 1, Lin discloses a clip for mounting a heat sink (92 + 11) to an electronic device (9) providing a locking block (90), the clip comprising: a handle (2) adapted for pivotably attaching to the heat sink; and a ring (3), one end of the ring pivotably attached to the handle (figure 1 & 2) and an opposite end of the ring adapted for engaging with the locking block, wherein when the handle is pivoted in a first direction the ring is moved to engage with locking block (shown by arrows in figures 3A and 3B) and when the handle is pivoted in a second direction (opposite to the direction of arrows in figures 3A and 3B) the ring is moved to disengage from the locking block, the second direction being opposite to the first direction.



- Regarding claim 2, Lin further discloses that the handle comprises a pair of first tabs inwardly formed at one end portion thereof, and a shaft is connected between the first tabs and adapted for received in a pivot slot of the heat sink (marked in figure).
- Regarding claim 3, Lin further discloses that the first tabs define a pair of coaxial holes and the shaft is rotatably received in the holes (see attached figure).
- Regarding claim 4, Lin further discloses that the handle further comprises an operating portion formed at an opposite end thereof by bending the opposite end outwardly (marked in figure).
- Regarding claim 5, Lin further discloses that the handle further comprises a pair of second tabs outwardly formed therefrom adjacent

Art Unit: 2835

to the first tabs, the second tabs define a pair of coaxial holes, and the ring comprises a pair of pivot portions at said one end extending through the holes respectively (marked in figure).

- Regarding claim 6, Lin further discloses that the ring has an approximate rectangular structure, said one end being an opening end of the structure and the said opposite end being a closed end of the structure.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 7 rejected under 35 U.S.C. 103(a) as being unpatentable over Lin in view of Lofland et al. (US Patent 6,625, 021 B1). Lin discloses all the limitations of claim 6, but does not disclose that the ring is made by bending a wire. Lofland discloses a clip for mounting a heat sink to an electronic device (100) with a ring made of a bend wire (70). At the time of the invention, it would have been obvious to one of ordinary skill in the art to incorporate the bend wire ring taught by Lofland et al. in the clip disclosed by Lin, to decrease the cost of the clip.

**Claim Rejections - 35 USC § 102**

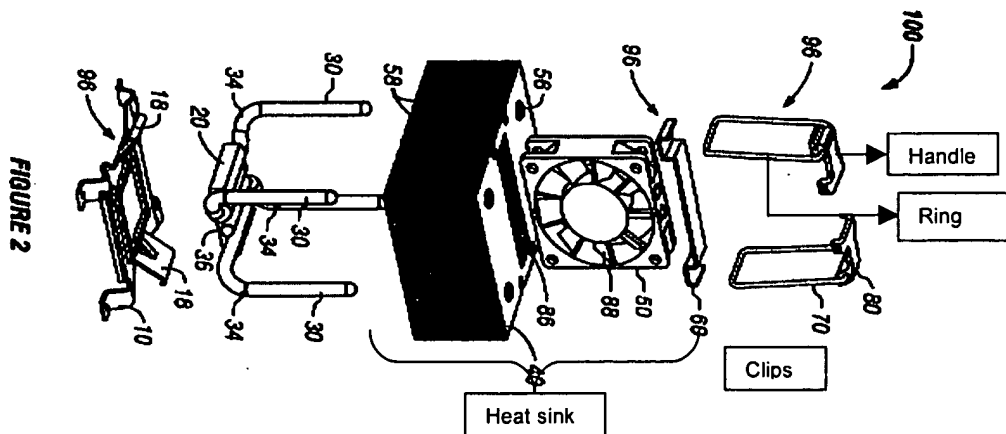
The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

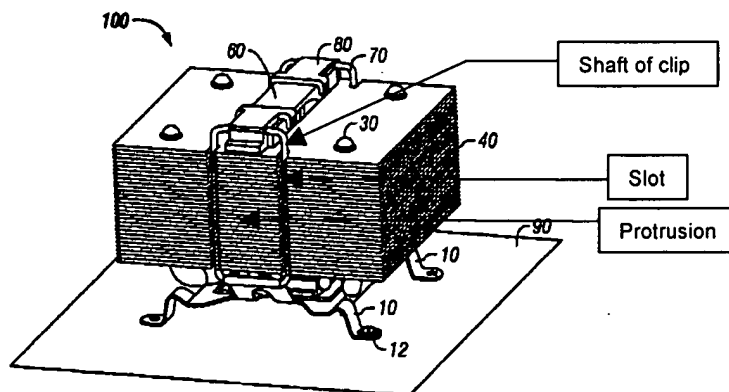
(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 8-11, 18 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Lofland et al.



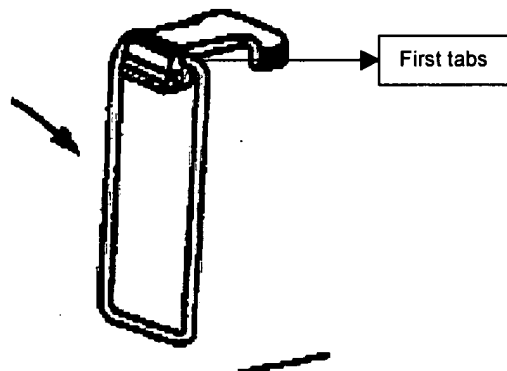
- Regarding claim 8, Lofland et al. disclose a heat dissipating device assembly (100) comprising: an electronic device (10 and covered components on PCB 90) providing a pair of locking means on opposite sides thereof (18 in figure 2), a heat sink attached on the electronic device, the heat sink comprising a plurality of fins (40) having a pair of outmost fins on opposite sides of the heat sink (top and bottom fins); and a pair of clips for securing the heat sink to the electronic device, each clip comprising a handle (80) pivotably connected to a corresponding outmost fin and a ring (70) connected to the handle, wherein the handle of each clip is pivotable about the corresponding outmost fin between a first position (position after the handle is moved in the direction of the arrows shown in figure 7) at which the ring is engaged with the locking means and a second position at which the ring is disengaged from the locking means (shown in figure 7).



- Regarding claim 9, Lofland et al. further disclose that each outmost fin outwardly forms a protrusion defining a slot, and the clip provides a

shaft received in the slot for pivotably attaching the clip to the heat sink (marked in figure).

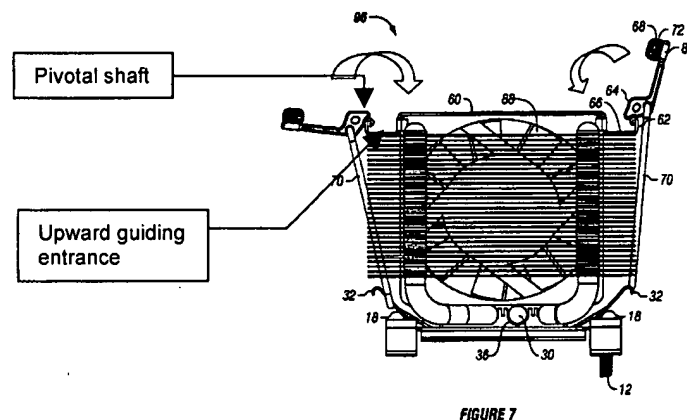
- Regarding claim 10, Lofland et al. further disclose that the protrusion further defines a guiding entrance above and in communication with the slot for facilitating the pivot to enter the slot (figure 7).



- Regarding claim 11, Lofland et al. further disclose that the handle comprises a pair of first tabs inwardly formed at one end portion thereof, and the pivot is connected between the first tabs (see attached figure, and also figure. 7).
- Regarding claim 18, Lofland et al. disclose a heat dissipating device assembly (100) comprising: an electronic device subassembly providing a pair of locking means on opposite sides thereof (18 in figure 2); a heat sink arranged on the electronic device subassembly (marked in an attached figure); and a pair of clips (96) located on opposite sides of the heat sink for securing the heat sink to the electronic device, each clip comprising a handle (80) moveably located



on a side thereof for connecting the handle to the heat sink, and latching means (70) pivotably attached to an opposite side of the handle for engaging with the electronic device assembly, wherein the handle of each clip is pivotable about the heat sink between a first position (position after the handle is moved in the direction of the arrows shown in figure 7) at which the latching means is engaged with the locking means and a second position at which the latching means is disengaged from the locking means (position shown in figure 7).



- Regarding claim 19, Lofland et al. further disclose that the handle defines a pivotal shaft and the heat sink defines an upward guiding entrance to allow said pivotal shaft to downwardly pass there-through until reaching a final position during assembling and also upwardly pass there-through to fully remove the clip from the heat sink during disassembling.

Art Unit: 2835

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 12 rejected under 35 U.S.C. 103(a) as being unpatentable over

Lofland et al. Lofland et al. discloses all the limitations of claim 11 and further discloses that the first tabs define a pair of coaxial holes (seen in figures) and the pivot is rotatably (figure 9) received in the holes. Although Lofland et al. does not explicitly say that the pivot is detachably received in the holes, it is obvious that wire clip (column 6, line 13) attached through a hole in the handle as disclosed by Lofland et al. have to be detachable. If the pivot of the wire clip disclosed by Lofland et al. is not actually detachable, it would have been obvious to one of ordinary skill in the art to attach the clip detachable at the pivot, to replace it in the event of wire breakage.

5. Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lofland et al. in view of Lin.

- Regarding claim 13, Lofland discloses all the limitations of claim 11, but does not disclose a second pair of tabs in the handle. Lin discloses a clip for a heat dissipating device comprising a handle with a pair of second tabs outwardly formed therefrom adjacent to the first

tabs, the second tabs define a pair of coaxial holes (marked in an attached figure). At the time of the invention, it would have been obvious to one of ordinary skill in the art to incorporate the handle with the first and second pair of tabs as disclosed by Lin in the clip assembly disclosed by Lofland et al. to easily rotate the handle between the locked and unlocked positions.

- Regarding claim 14, Lofland et al. further disclose that the ring has an approximate rectangular shape and comprises an opening end at which the pivot portions are formed and a closed end opposing the opening end and engaging with the locking means when the handle is located at the second position (figure 7). Lofland et al. does not explicitly say that the end of the ring connecting to the handle is open. However, from the depicted structure of the ring in the figures, it is obvious that the wire clip (column 6, line 13) is attached through a hole in the handle detachably and forming an open end. However, if the wire clip disclosed by Lofland et al. is not actually open at the end where it connects to the handle, it would have been obvious to one of ordinary skill in the art to make the ring at the end where it connects to the handle open to make the ring detachable and easily replaceable.
- Regarding claim 15, Lofland et al. further disclose that the ring is formed by bending a wire (column 6, line 13).

Art Unit: 2835

6. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lofland et al. in view of Chen et al. (PGPubs US 2003/0218866A1).
- Regarding claim 16, Lofland et al. disclose all the limitations of claim 8, but do not disclose that the electronic device comprises an electronic component mounted on a socket. Chen et al. disclose a heat dissipating device comprising a clip wherein the electronic device comprises a socket and an electronic component mounted on the socket (figure 2, paragraph -0011). At the time of the invention it would have been obvious to one of ordinary skill in the art to incorporate the socket carrying the electronic component as taught by Chen et al. with the heat dissipating device as disclosed by Lofland et al. to cool socketed electronic components.
  - Regarding claim 17, Chen et al. further disclose that the locking means is a locking block (5a) having a concave bottom surface (figure 2).

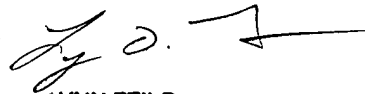
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Biju Chandran whose telephone number is (571) 272-5953. The examiner can normally be reached on 8AM - 5PM. Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached on (571) 272-2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2835

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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